APRIL/MAY 2024

DOCH44A/GOCH44A — POLYMER AND PLASTICS

Time : Three hours Maximum : 75 marks

Shanmuga Industries Arts & Science College T.V.Malai

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define-Polymers.
2. What is natural rubber? Give an example.
3. Explain the glass transition temperature.
4. Show the structure of linear polymer.
5. List out the four homopolymers.
6. Find the craft copolymers.
7. Interpret the synthetic rubber.
8. Tell the uses of polystyrene.
9. Where are polymer dyes used?
10. How plasticizers used for coating formulations?

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Outline the addition polymerisation.

Or

(b) Compile the ring polymerisation.

12. (a) Construct the cross linked structure of polymer.

Or

(b) Summarize the properties of polymers.

13. (a) Explore the block co-polymers.

Or

(b) Determine the molecular weight of polymer by osmometry Method.

14. (a) Discuss the preparation and properties of PVC.

Or

(b) Analyze the different preparations and properties of neoprene.

15. (a) Differentiate the thermoplastics and thermosetting plastics.

Or

(b) Evaluate the pigments used for plastics.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Organize the co-ordination polymerization.

17. Illustrate the stereochemistry of polymers.

18. Compare the number average and weight average molecular weight of polymers.

19. Recall the preparations, properties and uses of polythene.

20. Elaborate the lubricants and catalysts.

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